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ABSTRACT

This list of Environmental Sciences References Sources is intended to give undergraduate and graduate students a starting point when searching for information in the library. Entries are grouped according to type of reference material and then are listed in alphabetical order. The types of reference material included are guides to dictionaries, encyclopedias, handbooks, directories, statistical sources, bibliographies, and indexes and abstracting journals. Each entry consists of a complete citation, call number, location at the University of Virginia, and an annotation. Abbreviations used to locate references at the various university libraries are included. (Author/JN)

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ENVIRONMENTAL SCIENCES REFERENCE SOURCES
An Annotated Bibliography

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ENVIRONMENTAL SCIENCES REFERENCE SOURCES
An Annotated Bibliography

This list of Environmental Sciences Reference Sources is intended to give undergraduate and graduate students a starting point when searching for information in the library. Entries are grouped according to type of reference material and then are listed in alphabetical order. The types of reference material included are guides to the literature, dictionaries, encyclopedias, handbooks, directories, statistical sources, bibliographies, and indexes and abstracting journals. Each entry consists of a complete citation, call number, location at the University, and an annotation. The following location abbreviations for various libraries are used:

Alderman - Departments in Alderman are indicated
Bio/Psych - Biology/Psychology Library, Gilmer Hall
Chemistry - Chemistry Library, Chemistry Building
Engineering - Engineering Library, Thornton Hall
EVSC - Environmental Sciences Library, Clark Hall
Fine Arts - Fiske Kimball Fine Arts Library
Health Sciences - Claude Moore Health Sciences Library
Law - Law Library, North Grounds
Physics - Physics Library, Physics Building
S/T Reference - Science/Technology Information Center, Reference Collection, Clark Hall

GUIDES TO THE LITERATURE

Braydon, Clifford R. Noise Pollution: A Guide to Information Sources. Detroit: Gale, 1979.

Z5862.2.N6B7 (S/T Reference)

"This volume is an effort to consolidate and annotate key reference sources in order to expedite the process of controlling noise affecting the environment.... More than four thousand periodicals, reports, books, and other references have been reviewed in preparing this book.... Each annotation has been prepared with the objective of providing sufficient information with which to understand the reference."

Brewer, J. Gordon. The Literature of Geography: A Guide to Its Organisation and Use. London: Clive Bingley, 1978.

Z6001.B74 1978 (S/T Reference)

This book "is planned...as an introductory guide, identifying the most useful, the most significant, and the most authoritative sources within each branch of the subject. Reference works - including comprehensive monographs, textbooks, and handbooks - and bibliographic sources are emphasised throughout, as the means of tracing further more detailed and more advanced literature." The early chapters stress the structure of the subject and the literature and the later chapters discuss specialized branches of geography.

Burke, John Gordon and Jill Swanson Reddig. Guide to Ecology Information and Organizations. New York: H. W. Wilson, 1976.

Z5861.B87 (S/T Reference)

The purpose of the authors of this guidebook "is to provide some structure to the proliferating literature" of ecology. The material cited is generally of a non-technical nature. Chapters cover citizen action guides, indexes, reference books, histories, monographs, government publications, nonprint media, periodicals, organizations, and government officials.

Clark, Brian D., Ronald Bisset, and Peter Wathern. Environmental Impact Assessment: A Bibliography with Abstracts. London, New York: Mansell, Bowker, 1980.

Z5863.I57C63 1980 (S/T Reference)

This select, annotated bibliography, containing citations to publications concerned with various aspects of environmental impact assessment, is divided into five parts: 1) aids to impact assessment; 2) critiques and reviews of environmental impact assessment; 3) environmental impact assessment and other aspects of planning; 4) environmental impact assessment in selected countries; and 5) information sources. Author and subject indexes are included.

Giefer, Gerald J. Sources of Information in Water Resources: An Annotated Guide to Printed Materials. Port Washington, N. Y.: Water Information Center, 1976.

Z7935.G53 (S/T Reference)

"This guide, compiled for the use of the student and researcher, cites and annotates over 1100 titles found useful for reference purposes in the water resources field. The guide atempts to bring together those secondary sources which, because of the interdisciplinary nature of the water resources field, might otherwise elude most researchers. In addition to a core of titles familiar to hydrologists, titles are included from those allied fields which cover certain aspects of water." An author, subject, and title index is included.

Hammond, Kenneth A., George Macinko, and Wilma B. Fairchild. Sourcebook on the Environment: A Guide to the Literature. Chicago: University of Chicago Press, 1978.

Z5861.S66 (S/T Reference)

"The goal of this sourcebook is to provide a broad guide to selected aspects of the environmental literature. Toward this end critically annotated commentaries from twenty-six specialists introduce the reader to the basic literature in the field and give directions for examination of more advanced and more specialized works." Author and subject indexes are included.

Harrah, David F. and Barbara K. Harrah. Conservation/Ecology: Resources for Environmental Education. Metuchen, N. J.: Scarecrow, 1975.

Z5322.E2H37 copy 3 (EVSC)

The authors of this guidebook have attempted to compile the most applicable sources in a variety of disciplines "to assist students and teachers in finding sources that will help them understand the broad picture of the environment." Various chapters cover books, periodicals and periodical articles, government agencies and their publications, other public agencies, organizations, and environmental film distributors. Author, title, grade level (reading level), and subject indexes are included.

Harris, Chauncy D. Bibliography of Geography. Part I: Introduction to General Aids. Chicago: University of Chicago, Department of Geography, 1976 - .

Z6001.G116 (S/T Reference)

This bibliography covers only general bibliographic aids and is highly selective. It provides a detailed analysis of the six major comprehensive current bibliographies of geography. The emphasis is on works in English, French, German, and Russian, and chapters are devoted to different types of information sources. An author, title, and subject index is included.

Knight, Allen W. and Mary Ann Simmons. Water Pollution: A Guide to Information Sources. Detroit: Gale, 1980.

TD423.K54 (S/T Reference)

"This volume...brings together a diverse set of information sources from the physical, social, and natural sciences in the economic context of the environmental planning and management

process. The scope, historical perspective, and current focus offer an annotated guide to the literature on water pollution. This volume presents a compendium of reference material, case studies, and methodology ideas valuable to the scholar and practitioner. It contains a selected collection of periodical literature, government documents, professional journals, and teaching materials on the rapidly evolving field of water pollution. The introductions, annotations, and sources have been carefully written to give the reader a technical and pragmatic grasp of this fundamental aspect of man-environment relationships."

Meshenberg, Michael J. Environmental Planning: A Guide to Information Sources. Detroit: Gale, 1976.

Z5861.M47 (EVSC)

This bibliography, intended for planners, cites material from the literature of the natural sciences, engineering, and the social sciences. It offers "a highly selective and comprehensive introduction to the literature on each topic and guide[s] the reader to sources of additional, more detailed information." References to periodical literature, government documents, scientific journals, and teaching materials are included.

Owings, Loren C. Environmental Values, 1860-1972: A Guide to Information Sources. Detroit: Gale, 1976.

Z5861.O93 (S/T Reference)

"The theme of this bibliography is the historical development of attitudes toward, and concern for, nature in the United States.... It should be stressed that this is not a guide to the literature of the conservation movement.... The focus is neither economic nor political, but rather on the generalized concepts of a love of natural beauty, ecological relationships, and wilderness preservation." This bibliography includes books, articles, documents, pamphlets, bibliographies, and reference works. Unpublished theses and dissertations are not included.

Rudd, Robert L. Environmental Toxicology: A Guide to Information Sources. Detroit: Gale, 1977.

QH545.A1R8 (EVSC)

The selection of material in this volume reflects the compiler's background as an ecologist and zoologist. The book contains a highly selected collection of periodical literature, government documents, scientific journals, and teaching materials.

Schwartz, Mortimer D. Environmental Law: A Guide to Information Sources. Detroit: Gale, 1977.

KF3775.A1S35 (S/T Reference)

"This volume deals with environmental law as a field intended to protect, preserve, or rehabilitate the physical environment." Many aspects of environmental law have been excluded from consideration and these exclusions are listed in the preface. Material cited in this volume includes English language books, federal and state government documents, conference and symposia papers, and bibliographies. Periodical articles are generally not included because of coverage in the Index to Legal Periodicals and other indexes. "However, periodical titles and other frequently issued publications, such as loose-leaf services, devoted entirely or substantially to environmental law have been included."

Stapp, William B. and Mary Dawn Liston. Environmental Education: A Guide to Information Sources. Detroit: Gale, 1975.

GF27.S83 (S/T Reference)

"This is a guide to learning resources in the rapidly expanding field of environmental education. It is more than a bibliography or listing of materials, being rather an annotated compilation of sources of materials, information and support." The following sections are included: instructional aids; reference materials; governmental services; associations and organizations; magazines, journals, and newsletters; preservice and inservice education; programs and centers; and funding.

Tchobanoglous, George. Wastewater Management: A Guide to Information Sources. Detroit: Gale, 1976.

Z5853.S22T34 (EVSC)

"The volume presents a compendium of reference material and ideas invaluable to the scholar and practitioner. It contains a highly selected collection of periodical literature, government documents, scientific journals, and teaching materials on the rapidly evolving aspect of environmental engineering. This guide is intended to be a selective rather than an exhaustive work. It is designed to consolidate the literature in the field of wastewater management into a pertinent and useful information source and is intended for use by anyone who is initiating a literature search in this field. For purposes of this guide, wastewater management has been defined to encompass the engineering of wastewater collection, treatment, disposal, and reuse systems; the economic analysis and planning of such systems; and the legislation affecting the implementation of these systems."

Ward, Dederick C., Marjorie W. Wheeler, and Robert A. Bier, Jr. Geologic Reference Sources: A Subject and Regional Bibliography of Publications and Maps in the Geological Sciences. Metuchen, N. J.: Scarecrow, 1981.

Z6031.W35 1981 (S/T Reference)

"Geologic Reference Sources is a bibliographic guide to the significant current literature in the field of geoscience and its sub-disciplines. The general geology of countries and regions, including states and provinces of North America, is also featured. The literature selected ranges from introductory to highly-technical.... Geologic Reference Sources is worldwide in scope, but as can be expected in a work originating in North America, not only do English language publications predominate, but the flavor of the work is decidedly North American." The three sections of citations are general, subject, and regional. Subject and regional indexes are included.

Willis, Cleve E. and Barry C. Field. Environmental Economics: A Guide to Information Sources. Detroit: Gale, 1979.

Z5863.P6F53 (EVSC)

The authors have tried to focus on the environmental economics literature of the United States. They "have striven for reasonable comprehensiveness, and especially for the inclusion of enough references in the major segments of environmental economics that a reader, or prospective researcher, can gain a solid introduction to the necessary literature." Part one of this volume covers theoretical works and part two covers empirical studies.

Wood, D. N. Use of Earth Sciences Literature. Hamden, Conn.: Shoe String Press, 1973.

Z6031.W67 (S/T Reference)

"This book...is an attempt to provide guidance to the users of earth sciences literature. It is offered in the hope that it will be of use to both librarians and scientists, irrespective of whether they are learning their professions or have been practising them for some time. It is not intended as a comprehensive list of publications of potential interest to earth scientists. Its aim has been to present a general picture of the sturcture of the literature and to illustrate this with examples." Each chapter is written by a different contributing author.

DICTIONARIES

Bates, Robert L. and Julia A. Jackson, eds. Glossary of Geology. 2nd ed. Falls Church, Va.: American Geological Institute, 1980.

QE5.G37 1980 (S/T Reference)

"The present volume, the 36,000 term second edition, incorporates the modifications and growth of the geoscience vocabulary since 1972. Coverage has been expanded and updated, particularly in such active fields as biostratigraphy, caves and karst, igneous petrology, paleomagnetism, remote sensing, plate tectonics, and seismic stratigraphy. Some 450 new mineral names join the 4,000 in the previous edition; more than 100 abbreviations commonly used by geoscientists make their first appearance; and the list of references includes about 400 additional entries. The terms listed in this Glossary have appeared in English-language publications, and reflect North American usage unless otherwise noted. Foreign-language terms are included if they have been used by writers in English. Many obsolete terms are retained, as they remain valuable for readers using the older literature. Besides giving the current or preferred meaning of a term, some definitions include information on original usage or historical development."

Durrenberger, Robert W. Dictionary of the Environmental Sciences. Palo Alto, Ca.: National Press, 1973.

QE5.D87 (S/T Reference)

"This dictionary was prepared to help people concerned with the environment, whether professional or novices, to bridge the gap between and among the various environmental disciplines.... A broad range of academic disciplines will find the dictionary useful, including economics, engineering, geology, geography, anthropology, architecture, botany, zoology, agriculture...."

Huschke, Ralph E. Glossary of Meteorology. Boston: American Meteorological Society, 1959.

QC854.G55 1959 (S/T Reference)

This glossary "purports to define every important meteorological term likely to be found in the literature.... The definitions should be understandable to an undergraduate in a technical college yet contain sufficient pertinent detail to satisfy the working professional." United States usage is stressed. Cross references are provided and preferred terms are indicated. Terms are arranged alphabetically.

McIntosh, D. H. Meteorological Glossary. New York: Chemical Publishing, 1972.

QC854.G7 1972 (S/T Reference)

This glossary is intended to be a "systematic reference work containing a brief definition of all the terms in ordinary use." Definitions are short and terms are arranged alphabetically.

Monkhouse, F. J. and John Small. A Dictionary of the Natural Environment. New York: Wiley, 1978.

GB10.M64 1978 (S/T Reference)

This dictionary is based on A Dictionary of Geography by Monkhouse. Terms which relate to the natural environment were selected for inclusion. Line diagrams and photographs are included.

Schmieder, Allen A. A Dictionary of Basic Geography. Boston: Allyn and Bacon, 1970.

G108.A2D5 copy2 (S/T Reference)

"This dictionary has been written primarily for the beginning geography student, for the geography and social science teacher and for the reader interested in the ways of the geographer and in the world he has discovered and classified." The dictionary "explains those basic terms which are central to an understanding of general geography...." Words are arranged alphabetically and cross references are given. Some line drawings are also included.

Seltzer, Leon E. The Columbia Lippincott Gazetteer of the World. New York: Columbia University Press, 1952.

G103.L7 1952 (S/T Reference, Alderman Reference)

"The user of this book will find listed in one alphabet the places of the world - countries, regions, provinces, states, counties, cities, towns, islands, lakes, mountains, deserts, seas, rivers, canals, dams, peninsulas, capes, and like geographical features, and a good deal of information about them - variant spellings, pronunciation, population, geographic and political location, altitude, trade, industry, agriculture, mineral and other natural resources, irrigation works, river lengths, communications, history, cultural institutions and monuments, battles, and other facts pertinent to the place."

Sharp, Harold S. Handbook of Geographical Nicknames. Metuchen, N. J.: Scarecrow, 1980.

G105.S5 (S/T Reference)

"The purpose of this handbook is to indicate the nicknames of various cities, rivers, mountains, seas, deserts, capes, and the like.... This book does not indicate the nicknames of American cities, states, or counties.... Ancient names and names in foreign languages are not given, not being nicknames." The main entries and cross references are arranged alphabetically.

Stiegeler, Stella E. A Dictionary of Earth Sciences. New York: Pica Press, 1977.

QE5.D54 1977 (S/T Reference)

This dictionary gives short definitions for earth science and life science terms and acronyms. Extensive cross references provide guidance from obsolete terms to currently used terms.

Webster's New Geographical Dictionary. Springfield, Ma.: G. C. Merriam Company, 1980.

G103.5.W42 1980 (S/T Reference)

"The objective of [this] new work is to provide briefly essential information on spelling, pronunciation, and, depending on the nature of the entry, location, population, size (e.g. area, height, length), economy, and history. Entries have been selected on the basis of their usefulness and interest to the general reader and include the world's independent states, dependencies, major administrative subdivisions, largest cities, and significant natural physical features. Alphabetization of entries has been governed by the use of conventional spelling. But a significant number of alternate and former names have been included, which, together with foreign-language variants, produce some 15,000 cross-references."

ENCYCLOPEDIAS

Fairbridge, Rhodes Whitmore, ed. The Encyclopedia of Geochemistry and Environmental Sciences. New York: Reinhold, 1972.

QE515.F24 (S/T Reference)

Short articles are arranged alphabetically by topic in this encyclopedia. References to the literature are given at the end of each article. "Geochemistry is coupled with Environmental Science in this volume because it is the chemical pollution of our planet's air and water that is claiming the attention of many

geologists and chemists today." An extensive subject index is included.

Fairbridge, Rhodes Whitmore, ed. The Encyclopedia of Geomorphology. New York: Reinhold, 1968.

GB10.F3 (S/T Reference)

This encyclopedia contains short contributed articles treating "the science of geomorphology - the analytic physiography of the Earth's surface." The articles are arranged alphabetically by topic and an in depth subject index is included. A bibliography is given at the end of each article. Numerous photographs, line drawings, charts, and graphs are given.

Fairbridge, Rhodes Whitmore, ed. The Encyclopedia of Oceanography. New York: Reinhold, 1966.

GC9.F3 copy 2 (S/T Reference)

The short contributed articles in this encyclopedia are arranged alphabetically by topic. Numerous cross references and an extensive subject index are included. Because of the subject orientation or this encyclopedia, the editor has considered oceanography to be "the description and study of the oceans by all the classical disciplines rolled into one - physics, chemistry, geology, biology." Each article includes a short bibliography of further readings.

Fairbridge, Rhodes Whitmore, ed. The Encyclopedia of Paleontology. Stroudsburg, Pa.: Dowden, 1979.

QE703.E52 (S/T Reference)

The editors have attempted "to provide a survey of many of the objects and concepts encompassed" by paleontology. The contributed articles are arranged alphabetically by topic. Cross references and a subject index are provided. A bibliography is given at the end of each article.

Fairbridge, Rhodes Whitmore, ed. The Encyclopedia of Sedimentology. Stroudsburg, Pa.: Dowden, 1978.

QE471.E49 (S/T Reference)

This encyclopedia "is a comprehensive, alphabetical treatment of the discipline of sedimentology. It is intended to be a reference book for sedimentologists, geologists, and others who come in contact with sediments.... This book should be particularly useful...to petroleum and coal geologists, soil

scientists, hydrologists, archaeologists, and other professionals in related fields." The short contributed articles are arranged alphabetically by topic. Cross references and a subject index are provided.

Fairbridge, Rhodes Whitmore and Charles W. Finkl, eds. The Encyclopedia of Soil Science. Part 1: Physics, Chemistry, Biology, Fertility, and Technology. Stroudsburg, Pa.: Dowden, 1979.

S592.E52 (S/T Reference)

This volume is "an attempt to provide information on the nature and properties of soils.... The articles cover topics such as soil water, mineralogy of soil materials, particle sizes, the composition of organic matter, and microbial life in soils and their capacity to provide nutrient elements for plant growth. This list of topics is illustrative rather than comprehensive." The material presented here should be of interest to professional soil scientists, agronomists, geologists, graduate students, and reference librarians. The articles include short bibliographies. Extensive cross references and a subject index are provided.

Fairbridge, Rhodes Whitmore, ed. Encyclopedia of World Regional Geology. Part 1: Western Hemisphere (Including Antarctica and Australia). Stroudsburg, Pa.: Dowden, 1975.

QE5.F33 pt. 1 (S/T Reference)

The contributed articles in this encyclopedia represent an introduction to the regional geology of the western hemisphere. Regions were selected "on a sliding scale of magnitude, starting with continental reviews (very generalized), regional analyses, country entries, and then smaller spots, overseas territories and isolated islands.... The smaller the area, the more detailed, relatively speaking, will be its treatment." Articles are arranged alphabetically and bibliographies are provided. Subject and author indexes are included.

Firth, Frank E., ed. The Encyclopedia of Marine Resources. New York: Van Nostrand Reinhold, 1969.

SH201.F56 1969 copy 2 (S/T Reference)

The contributed articles in this encyclopedia deal with "the most significant aspects of the ocean's resources" and should be of value to "biologists, chemists, engineers, food technologists, metallurgists, fishery management specialists, teachers, students in marine-oriented fields, and thoughtful laymen...." Cross references and a subject index are provided. Some articles include a bibliography.

Fry, Keith, ed. The Encyclopedia of Mineralogy. Stroudsburg, Pa.: Hutchison Ross, 1981.

QE355.E49 (S/T Reference)

"In addition to articles by practicing mineralogists about the many aspects of their science, this volume contains a mineral glossary and two indexes to assist users in finding mineralogic information. Topics not immediately found among the alphabetically listed article titles and cross references may be searched for in the subject index. The mineral glossary contains nearly 3000 entries, approximately 2400 of which are considered to be valid mineral species. All mineral species are defined by chemical composition, structural group, and crystal system, with one or two references given. In addition, 530 of the more important minerals in terms of abundance, distribution, or economic importance are described in greater detail. Each article is accompanied by references considered to be sufficient to lead the user into more advanced and detailed treatment of each topic."

Groves, Donald G. and Lee M. Hunt. Ocean World Encyclopedia. New York: McGraw Hill, 1980.

GC9.G76 (S/T Reference)

This encyclopedia is written especially for high school and college students as well as for the non-specialist. Short articles are arranged in alphabetical order and cross references are provided. An extensive subject index is included. Plant and animal life, geography, physics, geology, geophysics, chemistry, and meteorology of the oceans are covered.

McGraw-Hill Encyclopedia of Environmental Science. 2d ed. New York: McGraw-Hill, 1980.

QH540.4.M3 1980 (S/T Reference)

This encyclopedia deals with various environmental topics and problems such as land reclamation, eutropification, desertification, climate modification, energy sources, urban planning, crop production, and air pollution. The 250 articles, written by specialists, deal with basic scientific and technical concepts and include a list of references for further reading. A good subject index is provided.

McGraw-Hill Encyclopedia of Science and Technology. 5th ed. New York: McGraw-Hill, 1982.

Q121.M3 1982 (S/T Reference)

"This encyclopedia presents pertinent information in every area of modern science and technology. Broad survey articles for each of the disciplines or large subject areas give even the uninitiated reader the basic concepts or rudiments. From the lead article the reader may proceed to other articles that are more restricted in scope by utilizing the cross-referencing system. These cross references are set in small capitals for emphasis and are inserted at the relevant points in the text. Each article begins with a definition of the subject, followed by sufficient background material to give a frame of reference and permit the reader to move into the detailed text of the article. Alphabetization of article titles is by word, not by letter.... Most of the articles contain bibliographies citing useful sources. The bibliographies are placed at the ends of articles or sometimes at the ends of major sections in long articles. To utilize additional bibliographies, the reader should refer to related articles which are indicated by cross references." Volume 15 contains an extensive subject index.

McGraw-Hill Encyclopedia of the Geological Sciences. New York: McGraw-Hill, 1978.

QE5.M29 (S/T Reference)

The articles included here have either been taken from the McGraw-Hill Encyclopedia of Science and Technology "or have been written especially for this volume. The broad scope of geological sciences is covered in great depth in the 560 alphabetically arranged articles on subjects such as plate tectonics, oceans, geological time scale, paleontology, mineralogy, physiographic provinces, orogeny, high-pressure phenomena, geophysical explorations, geochemistry, and atmospheric chemistry." An excellent subject index is provided.

HANDBOOKS

Air Pollution from Pesticides and Agricultural Processes. Cleveland: CRC Press, 1976.

TD887.P45A35 (S/T Reference)

"This monograph is an attempt to compile in a single volume the available scientific information on the air pollution aspects of pesticide manufacturing, usage, and disposal. [The] purpose in preparing the monograph has been to provide the reader with sufficient background information for understanding this complex subject and to identify those areas where further research is needed."

Bach, Wilfrid. Handbook of Air Quality in the United States. Honolulu: Oriental Publishing Company, 1975.

TD883.2.B3 (EVSC)

This handbook is written not only for air quality control personnel and urban and regional planners, but also for research scientists and others concerned about the quality of the air. "The primary goal has been to analyze and interpret national emission and ambient air quality data and to relate these to federal air quality control regulations." This book gives an up-to-date (early 1975) account of federal air quality control legislation and discusses federally recommended measurement and modelling techniques. It assesses damage and control costs and relates the potential effects of pollutant levels measured in the United States to health. The handbook is arranged in five parts with a subject index.

Carmichael, Robert S., ed. Handbook of Physical Properties of Rocks. Boca Raton, Fl.,: CRC Press, 1982.

QE431.6.P5C18 (S/T Reference)

"The objective of this handbook is to provide an organized compilation of data on rocks and minerals.... The handbook is interdisciplinary in content and approach. A purpose is to provide data for persons in geology, geophysics, geochemistry, petrophysics materials science, or geotechnical engineering...who seek information on materials and properties in another topic. This might be for purposes of evaluation, estimates, modelling, prospecting, assessment of hazards, subsurface character, prediction of properties, beginning new projects, and so on." Data are presented in a tabular format and the tables are arranged in chapters. A bibliography is provided for each chapter. The handbook is published in two volumes and each volume has a subject index.

CRC Handbook of Environmental Control. Cleveland: CRC Press, 1972.

TD145.C2 (S/T Reference)

"The aim of the series is to bring together pertinent information in tabular form that will be useful in evaluating the environment, not only from the standpoint of effects on the ecosystem, aquatic and terrestrial, but also on man's relationship to the environment and the environment's relationship to man. The division of subject matter is along three basic lines: the macroenvironment, which deals primarily with the air, soil, and water milieus; the microenvironment, which is concerned with the community...and with factors responsible for stress effects such as noise, temperature, vibration, and radiation; and the personal environment, which relates to the products used and consumed by man." The handbook

is published in three volumes: Volume 1 - Air Pollution; Volume 2 - Solid Waste; and Volume 3 - Water Supply and Treatment.

Embrey, Peter G. and John P. Fuller, eds. A Manual of New Mineral Names, 1892-1978. Oxford: Oxford University Press, 1980.

QE357.M36 1980 (S/T Reference)

"This work is a collected edition of the thirty 'Lists of New Mineral Names' that have been published in the Mineralogical Magazine. The first List appeared in 1897, compiled...with the object of providing a convenient reference to names not contained in the sixth edition (1892) of Dana's System of Mineralogy." Entries are arranged alphabetically by mineral name and references to the literature about the mineral are provided.

Golden, Jack. Environmental Impact Data Book. Ann Arbor, Mi.: Ann Arbor Science Publishers, 1979.

TD194.6.E6 (EVSC)

"This book will serve as a data reference, to supplement other sources used regularly in the preparation of environmental impact assessments and statements (EIS). It assumes the user is already involved in the environmental impact process and knows the format and data required by law.... Information is presented, usually in tabular format, to aid in quantification of impacts.... The data book is a compilation of other regularly used sources, from the Federal Register, to environmental law books, technical papers, textbooks and government publications." Chapters are arranged by topics such as air quality or ecosystems.

Liptak, Bela G. Environmental Engineers' Handbook. Radnor, Pa.: Chilton, 1974.

TD145.E57 (S/T Reference)

"The three volumes of the Environmental Engineers' Handbook contain technical and scientific information needed to utilize fully our modern technology in cleaning up the environment.... This reference book, in addition to giving complete coverage to all aspects of pollution causes, effects and remedies, also emphasizes the recycling, recovery, salvaging and reuse potentials." The arrangement of material is by chapter and a subject index is included.

Los Angeles County Air Pollution Control District. Air Pollution Engineering Manual. 2d ed. Research Triangle Park, N. C.: Environmental Protection Agency, Office of Air and Water Programs, Office of Air Quality Planning and Standards, 1973.

TD883.L67 1973 (S/T Reference, EVSC, Engineering)

"The manual deals with the control of air pollution at specific sources. This approach emphasizes the practical engineering problems of design and operation associated with the many sources of air pollution. These sources include metallurgical, mechanical, incineration, combustion, petroleum, chemical, and organic-solvent-emitting processes." Material is arranged in 12 chapters and 5 appendices. A subject index is included.

Lund, Herbert F. Industrial Pollution Control Handbook. New York: McGraw-Hill, 1971.

TD897.I35 (EVSC)

This book is intended to be "a communication bridge between the best practical experts on industrial pollution problems and all of the responsible industrial managers." Chapters deal with federal, state, and local legislation; air and water quality standards and criteria; air and water pollution control systems; disposal of collected wastes; joint municipal-industrial control programs; practical areas of research needed for pollution control; and industrial situations in which pollution is a difficult problem.

Rau, John G. and David C. Wooten. Environmental Impact Analysis Handbook. New York: McGraw-Hill, 1980.

TD194.6.E585 (EVSC)

"This reference handbook is designed to provide environmental planners, analysts, and decision-makers with specific techniques and tools that can be used to assess and predict the environmental impact of projects such as residential, commercial, and industrial developments, new communities, urban renewal or development, park and recreational facility development, dams and flood control projects, wastewater and sewer treatment plants, new airport construction, and power generating stations."

Roberts, Willard Lincoln. Encyclopedia of Minerals. New York: Van Nostrand Reinhold, 1974.

QE355.R6 (S/T Reference)

This reference book contains data for minerals which are arranged in alphabetical order by name. Properties given for each entry include the chemical formula, hardness, density, cleavage, habit, color-luster, mode of occurrence, best reference in English, crystal system, class, space group, lattice

constants, strongest diffraction lines, and optical constants. Color photographs are provided.

Sheehy, James P., William C. Achinger, and Regina A. Simon. Handbook of Air Pollution. Durham, N. C.: National Center for Air Pollution Control, 1968.

HE20:1303/3 (Alderman Public Documents)

This handbook brings together "data concerning the characteristics and behavior of air, gases and particles, and the chemistry of atmospheric pollution" plus information of a general nature useful to workers in the field of air pollution.

Sittig, Marshall. Pollutant Removal Handbook. Park Ridge, N. J.: Noyes Data Corp., 1973.

TD177.S57 (EVSC)

"The purpose of this handbook is to provide a one-volume ready reference for the handling of pollutants, and particularly those pollutants emanating from industrial processes. The major sources of the information contained herein are U. S. Patents and U. S. Government reports, primarily from the Environmental Protection Agency. Through citations in these and other sources, however, hundreds of references to books and periodical literature are given here. Thus, this book provides a ready reference to the entire spectrum of published literature on pollutant removal." Pollutants and polluting substances are arranged in alphabetical order. This handbook is valuable for references to the original literature.

Sittig, Marshall. Pollution Detection and Monitoring Handbook. Park Ridge, N. J.: Noyes Data Corp., 1974.

TD890.S57 (EVSC)

"This handbook contains methods for the detection and monitoring of pollutants in industrial effluents, notably air and water.... This book, however, is not a treatise of pharmacology or industrial toxicology, only a guide to the accurate evaluation of pollutant levels in a given effluent or ambient substrate." The arrangement of the handbook is by type of pollutant.

Smith, F. G. Walton. CRC Handbook of Marine Science. Cleveland: CRC Press, 1974.

GC24.S64 copy 2 (S/T Reference)

This book is a "special handbook of constants, tables, and properties covering all of the major disciplines as they relate to the ocean.... Volume I covers chemical oceanography, physical oceanography, atmospheric science (relation between ocean and atmosphere), marine geology, ocean engineering, and a number of tables of conversions and constants most used by oceanographers. Volume II contains sections on primary productivity, phytoplankton, zooplankton, and marine fisheries. Data within the sections are grouped on the basis of geography, ocean depth, chemical parameters, or taxonomic category."

Toxic Substances Control Sourcebook. Germantown, Md.: Aspen Systems Corp., 1978.

HD7263.T69 (Engineering, Health Sciences)

"This volume is divided into logically sequenced, major subject matter sections. The federal laws and regulations governing toxic substances control are presented first with emphasis on the Toxic Substances Control Act of 1976 and its numerous registration, reporting and other requirements. This section is followed by detailed information on the definition, identification, nature and status of toxic and hazardous substances subject to these regulations. Next, detailed aspects of the economic impact on industry of toxic substances control are examined. The fourth section identifies and classifies recommended management techniques for the control of toxic substances posing risk to worker health. The last section contains significant case studies which illustrate actual outcomes in litigation under toxic substances control laws. The volume's appendixes contain the full text of the Toxic Substances Control Act of 1976. They also provide the text of other federal laws appearing throughout the book, as well as details on the most current federal research being conducted on toxic substances of vital concern. The Toxic Substances Control Sourcebook has been designed to guide...decision-makers [in industry, business, government and other concerned groups] through the complexities of law, implementation, compliance, and effective management."

Verschueren, Karel. Handbook of Environmental Data on Organic Chemicals. New York: Van Nostrand Reinhold, 1977.

TD196.O73V47 (S/T Reference)

This handbook contains a compilation of information on more than 1,000 organic chemicals. The information was gathered from papers and books, of which 347 are cited in the bibliography. "Four distinct types of information are presented: 1. physical and chemical data; 2. data on air pollution...; 3. data on water pollution; 4. biological effects on microorganisms, plants, animals and man."

DIRECTORIES

Directory of Consumer Protection and Environmental Agencies. Orange, N. J.: Academic Media, 1973.

HC110.C63D55 (S/T Reference)

The purpose of this directory "is to provide in convenient reference form a comprehensive, up-to-date source of information on governmental and private organizations concerned with consumer and environmental protection in the United States."

Directory of Environmental Information Sources. 2d ed. Boston: National Foundation for Environmental Control, 1972.

HC110.E5A7 (S/T Reference)

This directory attempts "to provide reliable information to all individuals and groups interested in improving the quality of our environment.... Listings in this edition are grouped by information sources such as: government agencies, citizens organizations, trade associations," professional and occupational associations, and educational institutions. A list of conference proceedings, documents, reports, books, films and filmstrips is provided.

Encyclopedia of Associations. Detroit: Gale, 1956- .

HS17.G3 (S/T Reference, Alderman Reference)

This directory claims to be "the only comprehensive source of detailed information concerning nonprofit American membership organizations of national scope. In it can be found details on the location, size, objectives, and many other essential aspects of more than 14,500 trade associations, professional societies, labor unions, fraternal and patriotic organizations, and other types of groups consisting of voluntary members." Keyword, geographic, and executive indexes are provided.

Environmental Protection Directory: A Comprehensive Guide to Environmental Organizations in the United States and Canada. 2d ed. Chicago: Marquis, 1975.

TD171.E57 1975 (S/T Reference)

"The purpose of the Environmental Protection Directory is to provide in convenient reference form a comprehensive, up-to-date source of information on governmental and private organizations concerned with environmental quality in the United States and Canada." Subject, organization, personnel, and publication title references are included. Each entry gives the name of the

organization, address, telephone number, personnel, description of activities, and a list of publications.

Industrial Research Laboratories of the United States. Washington, D. C.: Bowker Associates, 1982.

T176.I65 (S/T Reference)

This directory is a compilation of the research and development capabilities of the industrial organizations in the United States. It also includes non-profit or privately financed firms doing research, development, engineering, consulting, or behavioral research in support of and for industry. Information given for each entry includes: name; address; telephone number; TWX; telex numbers; cable address; officers of the company and, where applicable, divisions and subsidiaries; name and address of each laboratory with names and titles of administrators and research personnel; number of professional staff with number having doctoral degrees, followed by scientific discipline represented and number of supporting staff. Each entry ends with a statement of chief R D activity. Geographic, personnel, and classification indexes are included.

National Directory of State Agencies, 1980-1981. Arlington, Va.: Information Resources Press, 1980.

JK2443.N37 1980/81 (S/T Reference)

This directory of state agencies is arranged in two major parts: state agencies arranged by state and state agencies arranged by function. For each entry, the name of the director, name of the agency, address, and telephone number are given. In an appendix, a list of associations of state government officials is given.

Research Centers Directory. Detroit: Gale, 1960- .

AS25.R4 (S/T Reference, Chemistry, Health Sciences)

This book is "a guide to University-related and other nonprofit Research Organizations established on a permanent basis and carrying on continuing research programs in agriculture, business, conservation, education, engineering and technology, government, law, life sciences, mathematics, area studies, physical and earth sciences, social sciences, and humanities." Research institutes, centers, foundations, laboratories, bureaus, experiment stations, and similar nonprofit research facilities, activities, and organizations are included. Institution, research center, and subject indexes are provided. Entries include the name of the center, address, telephone number, director's name, a brief description of the center, and a list of publications.

Sullivan, Linda E, ed. Encyclopedia of Governmental Advisory Organizations. 3rd ed. Detroit: Gale, 1980.

JK486.C7E52 3rd ed. 1980 (S/T Reference)

"Over 3400 committees are described in the body of this publication.... The material in this book is organized into 10 subject sections, as follows:" Agriculture; Business, Industry, Economics and Labor; Defense and Military Science; Education and Social Welfare; Environment and Natural Resources; Health and Medicine; History and Culture; Government, Law and International Affairs; Engineering, Science and Technology; and Transportation. "Within each section, committees with similar interests are grouped according to subject keywords contained in their names or supplied by the editor. It is important to note that the subject section classification system does not allow a committee to be described in more than one section of the book, even though its interests or responsibilities may encompass two or more broad areas. Therefore, the Index must also be used in most searches, since it offers access by more than a single keyword (both derived and assigned terms are used)." Entries include the name of the body, address, telephone number, executive secretary, history and authority, program, recommendations, membership, staff, subsidiary units, publications and reports, meetings, remarks, and termination information. The index includes subject and name entries.

Ulrich's International Periodicals Directory. New York: Bowker, 1932- .

Z6941.U5 (S/T Reference, Engineering, Alderman Reference)

Ulrich's lists some 62,000 periodicals of all kinds from all over the world in 385 subject areas. Each entry provides the title, frequency of publication, publisher's name and address, country of publication code, and the Dewey Decimal Classification number. Titles are arranged alphabetically within broad subject areas. A title index is provided. Perhaps the most useful information given for each title is the list of indexes and abstracting services which index the contents of the particular periodical.

United States Government Manual. Washington: Office of the Federal Register, 1973/74- .

JK421.A3 (S/T Reference, Engineering, Alderman Reference)

As the official handbook of the federal government, the United States Government Manual provides comprehensive information on the agencies of the legislative, judicial, and executive branches. The manual also includes information on

quasi-official agencies, international organizations in which the United States participates, and boards, committees, and commissions. A typical agency description includes a list of principal officials; an organizational chart; a summary statement of the agency's purpose and role in the government; a brief history of the agency, including its legislative or executive authority; a description of its programs and activities; and a "Sources of Information" section.

Wilson, William K. World Directory of Environmental Research Centers. New York, Oryx Press, 1974.

HC79.E5W54 1974 (S/T Reference)

This directory lists over 4,800 research centers located throughout the world, including educational institutions; field stations or laboratories; foundations; government organizations (federal, state, local); industrial, commerical, or professional organizations; and research institutes. Entries are arranged by subject and by country. Each entry includes the name and address of the center, the name of the director, size of the staff, the general environment being studied, and specific interests being studied within those environments.

World Environmental Directory. 4th ed. Silver Spring, Md.: Business Publishers, 1980.

TD12.W65 (S/T Reference)

Part one of this directory, covering the United States, lists product manufacturers of pollution control equipment; professional services; government agencies; a list of the membership of Senate and House committees; independent agencies and commissions; attorneys with environmental interests; state government agencies; professional, scientific, trade, labor, and public interest organizations; universities and other educational institutions; environmental libraries; corporate environmental officials; and periodical publications. In part two, which covers foreign countries, the following categories of information are given: government agencies; product manufacturers; consultants; professional, scientific, trade, and public interest organizations; and universities.

STATISTICS

American Statistics Index. Washington, D. C.: Congressional Information Service, 1973- .

Z7554.U5A46 (Alderman Public Documents, Law)

The American Statistics Index claims to be a master guide and index to all the statistical publications of the U. S. government.... Specifically, the purpose of ASI is to perform the following functions, promptly and comprehensively: identify the statistical data published by all branches and agencies of the Federal government; catalog the publications in which these data appear, providing full bibliographic information about each publication; announce new publications as they appear; describe the contents of these publications fully; index this information in full subject detail; and micropublish virtually all the publications covered by ASI. The arrangement of entries is by government agency. Indexes are given for subjects, names, categories (21 common demographic, geographic, and economic categories), titles, and agency report numbers. The ASI 1974 annual volume attempts to cover all statistical publications currently in print, as well as the most significant publications issued since the early 1960's.

Balachandran, Saronjini. Energy Statistics: A Guide to Information Sources. Detroit: Gale, 1980.

Z5853.P83B25 (S/T Reference)

Arranged in three sections, this guide contains a detailed alphabetical subject/keyword analysis of all recurring statistical data contained in some forty most used national and international energy serials, full bibliographic descriptions of the sources analyzed, and an annotated guide to additional sources of statistical information on individual sources of energy such as oil, petroleum, electricity, natural gas, and nuclear and solar power.

Statistical Reference Index. Washington, D. C.: Congressional Information Service, 1980- .

Z7553.S73 (Alderman Reference)

The Statistical Reference Index aims to provide users with a guide and index to selected statistical reference material from non-Federal sources on a wide spectrum of subject matter, representative of all types of data available from these sources. Current sources of statistics covering all fields are emphasized. In addition to currency, priority is given to establishing and maintaining coverage of basic social, governmental, economic, and demographic data for each of the fifty states. SRI tries to offer access to a balanced cross-section of significant statistical publications from trade, professional, and other nonprofit associations and institutes; business organizations; commerical publishers; independent research centers; state government agencies; and university research centers. The arrangement of entries is by issuing source. Indexes for subjects, names, categories, issuing sources, and titles are provided.

United States. Bureau of the Census. Statistical Abstract of the United States. Washington, D. C.: Government Printing Office, 1878- .

HA202 (S/T Reference, Alderman Reference)

"The Statistical Abstract of the United States is the standard summary of statistics on the social, political, and economic organization of the United States. It is designed to serve as a convenient volume for statistical reference and as a guide to other statistical publications and sources." The arrangement of statistical tables is by broad subject categories. A subject index is provided.

Wasserman, Paul. Statistics Sources. 6th ed. Detroit: Gale, 1980.

Z7551.S84 1980 (S/T Reference)

This guide to sources of statistics attempts "to bring together under specific subjects information designed to lead the user to sources of statistical data about the United States and foreign countries. The work indexes statistical information both in sources having an international scope and those covering only the United States or individual foreign countries. The arrangement of this work is a straight alphabetical listing of subjects. For each subject there is indicated the publications in which statistics on that subject can be found. Even though most of the sources listed are publications, a considerable number of organizations, government agencies, trade and professional groups, and international bodies are cited because they are clearly important sources of data, even if they do not publish all of the statistics which they compile. In such instances, specific inquiries may be addressed to the organization cited."

PERIODICAL TITLES

Alkire, Leland G. Periodical Title Abbreviations. 3d ed. Detroit: Gale, 1981.

Z6945.A2W34 1981 (S/T Reference)

This title is arranged in three volumes: Volume 1 - Periodical Title Abbreviations: By Abbreviation, which "translates magazine, journal, and newspaper title abbreviations into full titles"; Volume 2 - Periodical Title Abbreviations: By Title, which is an arrangement of the 35,000 entries of Volume 1 in alphabetical order by title; and Volume 3 - New Periodical Title Abbreviations, which "will consist of two interedition supplements to the main volumes." Coverage in this edition has

been greatly expanded but abbreviations from Chemical Abstracts have not been included. "The abbreviations...are arranged in strict letter-by-letter sequence, regardless of spacing, punctuation, or capitalization." Title abbreviations from science, the social sciences, the humanities, law, medicine, religion, library science, engineering, education, business, art, and many other fields are included.

Chemical Abstracts Service Source Index. Columbus, Ohio: Chemical Abstracts Service, 1969- .

QD1.A23 (S/T Reference)

The Chemical Abstracts Service Source Index, frequently referred to as CASSI, is a directory of journals and other serials in the fields of chemistry, biology, engineering, and physical sciences. There are 82,402 total entries arranged by title abbreviation. For each entry, the complete title and a list of libraries which own the title are given.

PIE, Publications Indexed for Engineering. New York: Engineering Information, Inc.

T1.E451 (Engineering Reference)

Entries in this list represent the current publications abstracted and indexed for Engineering Index. The 2000+ titles "include regular professional and industrial journals, as well as proceedings, transactions, and special publications of engineering societies, scientific and technical associations, universities, laboratories and research institutions, government agencies, and industrial organizations." The entries appear in alphabetical order by abbreviated title. The list is published in the last volume of the Engineering Index annual cumulation, as a separate publication, and as quarterly updates printed in the monthly issues of Engineering Index.

Serial Sources for the BIOSIS Data Base. Philadelphia: BioSciences Information Service of Biological Abstracts, 1975- .

Z5321.B68a (S/T Reference)

Serial Sources for the BIOSIS Data Base lists the serial publications such as review annuals; reports of periodically published conferences, congresses and symposia; government sponsored research reports; and the traditional literature of biology which are indexed in Biological Abstracts and Biological Abstracts/RRM. Entries are arranged alphabetically by abbreviated title. For each entry, the complete title, coden, frequency of publication, and publisher are given.

BIBLIOGRAPHY

United States. Geological Survey. Publications of the Geological Survey. Washington: Government Printing Office, 1879/1961- .

Z6034.U49U53 (S/T Reference)

This catalog and its supplements form a list of Geological Survey books, maps, and charts. References to professional papers and water-supply papers are given. Author, subject, and geographic indexes are provided. The cumulative and annual volumes are kept up to date by a monthly publication called New Publications of the Geological Survey.

Council of Planning Librarians. CPL Bibliographies. 1979- .

Z5942.C6 (S/T, Fine Arts)

This title continues the series of bibliographies published from 1958-1978 under the title Exchange Bibliographies. Each bibliography is on a specific aspect of urban and regional planning, urban affairs, public administration, or related topics. The series is quite broad in scope, with topics ranging from land use planning to housing and health care. Some bibliographies are annotated. Twenty to thirty are issued each year and cumulative indexes appear irregularly. The quality of the bibliographies varies.

INDEXES AND ABSTRACTING JOURNALS

Air Pollution Abstracts. Research Triangle Park, N. C.: Air Pollution Technical Information Center. 1971-1976.

EP4.11: (Alderman Public Documents)

This abstracting journal is intended to announce "selected technical literature recently accessioned by the Air Pollution Technical Information Center (APTIC). For each accession, its abstract number, APTIC accession number, bibliographic citation, and abstract are given. Semiannual cumulative indexes to both" subjects and authors are available. Material abstracted includes patents, journal articles, symposium papers, preprints, technical reports, and Government Printing Office publications. The arrangement of abstracts is by broad subject field.

Air Pollution Titles. University Park, Pa.: Center for Air Environment Studies, Pennsylvania State University, 1966- .

Z5862.2.A4A43 (S/T Reference)

"A guide to current air pollution literature..., this publication uses a computer produced keyword-in-context (KWIC) format to provide a survey of air pollution titles. Pertinent titles are selected from over 1000 journals each year." Technical reports are also indexed. This publication is arranged in two parts: 1) the KWIC index, and 2) the bibliography of titles arranged by senior author.

Applied Ecology Abstracts. London, Arlington, Va.: Information Retrieval Limited, Vol. 1-5, Jan. 1975-Dec. 1979.

QH540.A56 (S/T Reference)

For an annotation of this title, see Ecology Abstracts.

Aquatic Sciences and Fisheries Abstracts. London: Information Retrieval Limited, Vol. 1-7, July 1971-Dec. 1977.

QH90.A632 (S/T Reference)

Each issue of this index contains 1200-1500 abstracts followed by a geographic index, a taxonomic index, and an author index. All types of source documents dealing with the science and technology of the marine and freshwater environments, including pollution, utilization of resources (with particular reference to the fishing industry) and the biology and ecology of all aquatic organisms, are reported. The editorial staff monitors a list of some 5000 journals and other source documents. Cumulated annual indexes are available. This journal has been continued in two parts.

Aquatic Sciences and Fisheries Abstracts. Part 1: Biological Sciences and Living Resources. London: Information Retrieval Limited, Vol. 8- , Jan. 1978- .

QH90.A633 (S/T Reference)

"All types of source document dealing with aquatic organisms and their environment (including pollution) are covered. Marine, freshwater and brackish environments are included, and abstracts cover laboratory studies of aquatic organisms as well as research in the field. Natural resources are an important feature of Part 1 of ASFA, and fisheries are dealth with in particular detail." Cumulative annual subject, author, and geographic indexes are available. This journal is available for online searching.

Aquatic Sciences and Fisheries Abstracts. Part 2: Ocean Technology, Policy and Nonliving Resources. London: Information Retrieval Limited. Vol. 8- , Jan. 1978- .

QH90.A634 (S/T Reference)

"All types of source document dealing with physical and chemical oceanography and limnology, geophysics and geochemistry, technology and ocean policy are covered. Marine resources such as oil and gas are a particular feature of this journal (for full coverage of biology, ecology and living resources in the aquatic environment, please see ASFA Part 1)." Cumulative annual subject, author, and geographic indexes are available. This journal is available for online searching.

Bibliography and Index of Geology. Boulder, Co.: Geological Society of America, 1933- .

Z6031.G4 (S/T Reference)

This index is published in twelve monthly issues with annual cumulations and "covers the earth science literature of the world. Books, serials, reports, maps, and, for North America, theses are included. In 1969, it succeeded the Bibliography and Index of North American Geology, a U. S. Geological Survey publication, which included literature from 1785 to 1970; and the Bibliography and Index of Geology Exclusive of North America, published by the Geological Society of American, covering 1933 through 1968." The monthly issues have four sections: serials, fields of interest, subject index, and author index. Complete bibliographic citations are found in the fields of interest section. The annual "cumulations consist of a citation section arranged alphabetically by author, a subject index, and a list of serials covered. The annual cumulations contain all citations and indexing published in the monthlies." This index is available for online searching as the GeoRef file.

Biological Abstracts. Philadelphia: BioSciences Information Service of Biological Abstracts, Vol. 1- , Dec. 1926- .

QE301.B37 (S/T Reference, Bio/Psych, Health Sciences)

Biological Abstracts is a "printed reference publication which provides informative abstracts, completely in the English language, of current research reports from the biological and biomedical literature.... BA is issued twice a month and in two volumes per year. In each issue the abstracts are grouped in accordance with the primary emphasis of the article." Author (personal and corporate names), biosystematic (broad taxonomic categories), generic (genus-species names), concept (broad subject concepts), and subject (specific words) indexes are available in each issue and cumulated volume. This abstracting journal is available for online searching as the BIOSIS Previews file.

Biological Abstracts/RRM. Philadelphia: BioSciences Information Service of Biological Abstracts, Vol 18- , Jan. 1980- .

Z5321.B672 (S/T Reference)

This title continues BioResearch Index and "provides Content Summaries for research reports, reviews, and meetings in biology and biomedicine. These Content Summaries are grouped in each issue by subject headings." The types of material covered include "letters, notes, symposia papers, meeting abstracts, trade journal items, translated journals, review publications, bibliographies, technical data reports, research communications, books, book chapters, and a variety of special taxonomic publications." The indexes include author names, qroad taxonomic categories, organism names, broad subject concepts, and specific words. BA/RRM is issued twice a month with two cumulated volumes per year. This journal is available for online searching as the BIOSIS Previews file.

Biological and Agricultural Index. New York: H. W. Wilson Co., Jan. 1916- .

Z5073.A46 (S/T Reference)

"The Biological and Agricultural Index is a cumulative subject index to English language periodicals in the fields of agricultural chemicals, agricultural economics, agricultural engineering, agriculture and agricultural research, animal husbandry, biochemistry, biology, botany, ecology, entomology, environmental science, food science, forestry, genetics and cytology, horticulture, marine biology and limnology, microbiology, nutrition, physiology, plant pathology, soil science, veterinary medicine, and zoology." The index is published monthly except in August and a bound cumulation is issued each year.

BioResearch Index. Philadelphia: BioSciences Information Service of Biological Abstracts, Vol. 3-17, Jan. 1967-Dec. 1979.

Z5321.B672 (S/T Reference, Bio/Psych, Health Sciences)

For an annotation of this title, see the entry for Biological Abstracts/RRM.

Chemical Abstracts. Columbus, Ohio: American Chemical Society, 1907-.

QD1.A512 (S/T Reference, Chemistry)

The key to the world's chemical literature, Chemical Abstracts has been published continuously since 1907. The abstracts qnd indexes can lead a searcher to information on any

specific chemical topic or substance contained within more than 8 million published reports of scientific research and development. Abstracts are published in weekly issues and are arranged in 80 subject sections according to the principal subject of the paper or patent abstracted. Each issue has author, patent number and subject indexes. Comprehensive indexes are published for each volume and include chemical substance, general subject, molecular formula, ring systems, author, and numerical patent indexes. Collective indexes are provided for the following time periods: 1907-1916, 1917-1926, 1927-1936, 1937-1946, 1947-1956, 1957-1961, 1962-1966, 1967-1971, 1972-1976, 1977-1981, and 1982-1986.

Cumulative Subject Index to the Public Affairs Information Service Bulletins, 1915-1974. Arlington, Va.: Carrollton Press, 1977-1978.

Z7163.P915 (Alderman Reference)

This cumulative index is a merger of sixty separate annual indexes and must be used in conjunction with the PAIS annual volumes. The entries in the index contain three elements: 1) a two digit number in parentheses which refers to the year of the annual PAIS Bulletin in which the full reference appears; 2) a page number in the annual Bulletin; 3) a left or right hand column designation and a position code number which represents the number of full entries from the top of the column of the annual Bulletin in which the reference appears.

Current Contents: Agriculture, Biology, and Environmental Sciences. Philadelphia: Institute for Scientific Information.

Z5071.C86 (EVSC - last six months only)

This current awareness service is issued weekly and presents the tables of contents for more than 1,025 journals which report research results "in the agricultural, biological, environmental, food and veterinary sciences." Each issue provides subject and author indexes. The author index includes addresses.

Current Contents: Life Sciences. Philadelphia: Institute for Scientific Information.

Z7403.C89 (EVSC-current issues only, Biology)

This current awareness service is issued weekly and presents the tables of contents for more than 1,100 journals in the life sciences. Each issue has subject and author indexes. The author index includes addresses.

Deep Sea Research. Part B: Oceanographic Literature Review. Oxford, New York: Pergamon Press, Vol. 26- , 1979- .

Z6004.P602 (S/T Reference)

This title continues Oceanographic Abstracts and Bibliography (S/T Reference Z6004.P602) which was previously published as a supplement to Deep Sea Research and Oceanographic Abstracts (S/T GC1.D25). "Oceanographic Literature Review is a monthly selection of references from recent literature in oceanography and related disciplines. Most citations are accompanied by a short annotation or abstract, and, when obtainable, by the first author's address. Subject and author indices are published for the first three quarters of the year, and a cumulative index is published annually.... References are primarily gathered from the approximately 3,500 journals and other serial publications received by the library of the Marine Biological Laboratory in Woods Hole, Massachusetts, and the Woods Hole Oceanographic Institution." References are grouped into the following categories: physical oceanography, marine meteorology, chemical oceanography, submarine geology and geophysics, biological oceanography, and general.

Ecological Abstracts. Norwich, England: Geo Abstracts, Ltd, 1974- .

QH540.E25 (S/T Reference)

Ecological Abstracts is published six times per year. Annual subject, author, and regional indexes are available from 1974-1978. Abstracts are provided in the following areas of ecology: global and general; marine; tidal and estuarine; freshwater; terrestrial; applied; historical; and general theory, methods, and techniques. Each issue has a table of contents and a subject index.

Ecology Abstracts. London: Information Retrieval Limited, Vol. 6- , Jan. 1980- .

QH540.A56 (S/T Reference)

"Ecology Abstracts, formerly called Applied Ecology Abstracts, commenced publication in 1975 and is published monthly. Each issue contains approximately 1000 abstracts, with author and subject indexes. Approximately 5000 scientific journals and other source references are monitored regularly for relevant material.... The table of contents shows the full scope of the journal, which deals with interactions between microbes, plants and animals, and their environments. These interactions are primarily affected by climate, water resources, soil and man. Key papers on pure ecological topics are abstracted, and papers dealing with resource and ecosystem management and modelling are included. Such fields as economics, operations research, and systems analysis are considered when they relate to ecosystems or

the environment. Environmentally related problems such as pollution and soil erosion are also covered. Abstracts are allocated to the section (sub-section) to which they are most relevant and cross-referenced to other sections (sub-sections) where appropriate." Annual subject and author indexes are available.

Energy Research Abstracts. Oak Ridge, Tn.: Technical Information Center, U. S. Department of Energy, 1976- .

Z7144.F6U5a (S/T Reference)

Energy Research Abstracts is "a comprehensive semimonthly abstract journal devoted to all areas of energy-related information produced by the Department of Energy, other U. S. government organizations, and foreign governments. Indexes are cumulated semiannually and annually." Printed annual indexes will be discontinued after the printed indexes are issued for Volume 6, 1981. Access from 1982 will be either through microfiche indexes or through online search services. Energy Research Abstracts "provides abstracting and indexing coverage of all scientific and technical reports, journal articles, conference papers and proceedings, books, patents, theses, and books originated by the U. S. Department of Energy, its laboratories, energy centers, and contractors. ERA also covers other energy information prepared in report form by federal and state government organizations, foreign governments, and domestic and foreign universities and research organizations. The user should remain aware that ERA coverage of non-report literature is limited to that generated by Department of Energy activity."

Engineering Index. New York: Engineering Information, Inc., 1906- .

T1.E451 (Engineering)

The Engineering Index is an organized compilation of abstracts of articles and papers covering the world's technological literature significant to all engineering disciplines. This literature reflects the varying functions in engineering which involve research, development and testing, design and systems engineering, construction and maintenance, production, sales and marketing, management, consulting and education. The literature covered by Engineering Index is to be found mainly in published journals, conferences, reports, monographs, and books. The major part of Engineering Index is made up of abstracts arranged under subject headings taken from and authority list of indexing terms called Subject Headings for Engineering (SHE). Engineering Index is published monthly with annual cumulations. Publications Indexed for Engineering is the key to the serial title abbreviations. This source is available for online searching.

Environment Abstracts. New York: Environment Information Center, Inc., 1971- .

Z7171.E59 (S/T Reference)

This abstracting service provides references to journal articles, books, bibliographies, technical reports and conference papers. A classified main entry section provides a complete citation with an abstract. The main entry section is followed by subject, industry, and author indexes. This source is available for online searching.

Environment Index. New York: Environment Information Center, Inc., 1971- .

Z5322.E2E57 (S/T Reference)

This title is published annually as a cumulative index to Environment Abstracts. Indexes included are subject, SIC code number, geographic term, and author. Special sections include reviews of national and international developments during the year, legislation, environmental impact statements, a directory of Pollution Control Officials, and lists of conferences, books, and films.

Environmental Periodicals Bibliography. Santa Barbara: International Academy at Santa Barbara, Environmental Studies Institute, 1972-.

Z7171.E6 (S/T Reference)

"The purpose of Environmental Periodicals Bibliography is to organize efficiently the vast periodical literature on environmental subjects. This publication assembles references on interdisciplinary subjects to create a broad overview of the interrelated areas of environmental concern. The publication is organized into three major sections: a Table of Contents of Periodicals section, a Subject Profile Index, and an Author Index. A Subject Directory provides a guide to general and specific subject areas." This source is available for online searching.

Geo Abstracts A: Landforms and the Quaternary. Norwich, England: University of East Anglia, 1972- .

GB400.G46 (S/T Reference)

This abstracting journal is issued six times per year and the last issue of the year includes cumulated author and regional indexes. Citations and abstracts are arranged in the following categories: landforms, fluvial geomorphology, regional physiography, neotectonics, structural control, volcanic

landforms, soil mechanics, slopes, karst, microrelief, geomorphological maps, applied geomorphology, quaternary, glacial landforms and sediments, mid-latitude and extra-glacial, sea-level and river terraces, periglacial, glaciology, weathering and related pedogenesis, soil erosion, soil classifiction and survey, soil systematics, ans soils. This source is available for online searching.

Geo Abstracts B: Climatology and Hydrology. Norwich, England: University of East Anglia, 1972- .

G1.G22 (S/T Reference)

This abstracting journal is issued six times per year and the last issue each year includes cumulated author and regional indexes. Citations and abstracts are arranged in the following categories: general meteorology; regional evaluations; radiation and energy budget; pressure systems and air circulation; moisture, precipitation mechanisms and weather modification; biometeorology; microclimatology and urban climates; climatic fluctuations; air quality; general hydrology; precipitation assessment; interception, soil moisture and groundwater; lakes; evaporation; runoff and hydraulics; surface water quality; and water resources and land use effects. This source is available for online searching.

Geo Abstracts C: Economic Geography. Norwich, England: University of East Anglia, 1966- .

HF1021.G42 (S/T Reference)

This abstracting journal is issued six times per year and the last issue of each year includes cumulated author and regional indexes. Citations and abstracts are arranged in the following categories: economic geography - philosophy, methodology, and education; location theory and spatial analysis; urban studies; economic development; environmental economics; general resources; water; fuel and energy; minerals; labor, capital, and income; agriculture; forestry; fish; manufacturing; tertiary; transport and communications; international trade and economic association; and regional studies. This source is available for online searching.

Geo Abstracts D: Social and Historical Geography. Norwich, England: University of East Anglia, 1974- .

GF1.G45 (S/T Reference)

This abstracting journal is issued six times per year and the last issue of the year includes cumulated author and regional indexes. The citations and abstracts are arranged in the following categories: social, population distribution, population

change, population migration, population fertility, man and environment, natural hazards, perception, medical, regional, cultural, historical, political, urban, rural, methodology, biography, and education. This source is available for online searching.

Geo Abstracts E: Sedimentology. Norwich, England: Geo Abstracts, University of East Anglia, 1974- .

QE471.G448 (S/T Reference)

This abstracting journal is issued six times per year and the last issue of the year includes cumulated author and regional indexes. Citations and abstracts are arranged in the following categories: fluid mechanics and hydraulics; sedimentary mechanics; texture and other bulk properties; recent aeolian environments; recent alluvial environments; lakes, natural and artificial; deltas, estuaries, and tidal flats; beaches, barrier islands, and other coasts; recent shelf carbonates and evaporites; recent shelf clastics; continental margins; present day ocean basins; applied sedimentation and pollution; ancient clastic sediments; ancient carbonate and chemical sediments; regional and economic geology; palaeogeography and tectonics; biostratigraphy; organic activity, organisms, and sediments; sedimentary geochemistry - inorganic and organic; clays and clay minerals; apparatus, methods and programs; and general texts. This source is available for online searching.

Geo Abstracts F: Regional and Community Planning. Norwich, England: University of East Anglia, 1972- .

HT390.G4 (S/T Reference)

This abstracting journal is issued six times per year and the last issue of the year includes cumulated author and regional indexes. Citations and abstracts are arranged in the following categories: planning theory and research, statistical techniques and data, national planning, regional and economic planning, sub-regional and structure planning, urban planning, rural planning, transportation planning, social planning, housing, third world development, environmental planning, planning law and administration, and participation and decision making. This source is available for online searching.

Geo Abstracts G: Remote Sensing, Photogrammetry and Cartography. Norwich, England: University of East Anglia, 1974- .

QE33.2.R4G4 (S/T Reference)

This abstracting journal is issued six times per year and the last issue of the year includes cumulated author and regional indexes. Citations and abstracts are arranged in the following

categories: remote sensing, data acquisition, data collection platforms, instrumentation for interpretation, data processing, interpretation, survey and measurement, photogrammetry and orthophotography, non-topographic photogrammetry, automated mapping, atlases, topographic and bathymetric maps, thematic maps, and cartography. This source is available for online searching.

Geo Abstracts: Annual Index. Norwich, England: University of East Anglia, 1973- .

Z6031.G38 (S/T Reference)

This annual index covers all seven sections of Geo Abstracts. The subject index is made up of words chosen from the title of papers and from the body of abstracts. In the author index, authors are listed alphabetically by last name. For each entry, a code number is given (such as 79A/2703) which designates the year, section of Geo Abstracts, and abstract number. To locate the citation, simply take the code number and look up the citation in the appropriate year and section of Geo Abstracts.

Geophysical Abstracts. Norwich, England: Geo Abstracts, Ltd., 1977- .

QE500.G366 (S/T Reference)

This title supersedes Geophysical Abstracts which was issued by the U. S. Geological Survey (QC806.G45). Geophysical Abstracts is published six times per year and an annual index is published in the following year. The annual index includes subject, author, and regional sections. In each issue, citations and abstracts are arranged in the following sections: age determination, cosmogeny, earth structure, electrical, gravity, heat and heat flow, magnetics, rheology, seismology, tectonics, volcanology, well logging, and mathematical methods.

Government Reports Announcements. Springfield, Va.: National Technical Information Service, 1946- .

Z7916.B47 (S/T Reference)

Government Reports Announcements is published every two weeks by the National Technical Information Service. In GRA, NTIS publishes full summaries of current U. S. and foreign research reports and other specialized information. Citations and abstracts are arranged in broad subject categories. Specific citations can be located by searhcing the keyword, personal author name, corporate author name, contract number, grant number, report number, or NTIS order number indexes. The page number of the main entry is given for each index entry. This source is available for online searching.

Index to U. S. Government Periodicals. Chicago: Infordata International, Inc., 1970- .

Z1223.Z7I5 (Alderman Public Documents, Law)

The intent of the publishers is to provide access "to every one of the U. S. government periodicals which offers substantive articles of lasting research and reference value.... Indexing is based on a thesaurus created exclusively by and for Index to U. S. Government Periodicals." Under each subject index term a complete citation to each article is given. Author entries are also provided.

International Abstracts of Biological Sciences. London, New York: Pergamon Press, 1954- .

QH301.I475 (S/T Reference, Health Sciences)

This abstracting service "covers the more important papers in biochemistry, physiology, pharmacology, microbiology, immunology, oncology, cell biology, genetics, anatomy, animal behaviour and experimental zoology. Subjects are approached from the fundamental point of view. The applications of biology in agriculture and clinical medicine are covered only insofar as they depend on the development of fundamental research." Journals, symposia, and society proceedings are indexed. This journal is published monthly. No annual indexes are available.

Meteorological and Geoastrophysical Abstracts. Lancaster, Pa.: American Meteorological Society, 1950- .

QC851.M178 (S/T Reference)

Meteorological and Geoastrophysical Abstracts "is a monthly publication presenting, in English, current meteorological and geoastrophysical abstracts gleaned from foreign and domestic literature." Journals, annual series, and numbered monographs are covered. Abstracts are arranged in the following subject areas: environmental sciences, meteorology, astrophysics, hydrosphere/hydrology, glaciology, and physical oceanography. Each issue includes author, subject, and geographic indexes as well as a list of specialized bibliographies published in Part II of MGA. Annual indexes are available for some years. This source is available for online searching.

Mineralogical Abstracts; issued by the Mineralogical Society. London: Simpkin, Marshall, Hamilton, Kent, Co., 1920- .

QE351.M28 (S/T Reference)

This title contains complete citations and abstracts for papers, books, and survey publications arranged in the following subject areas: age determination, apparatus and techniques, clay minerals, crystal structure, economic minerals and ore deposits, experimental mineralogy, gemstones, geochemistry, lunar and planetary studies, meteorites and tektites, mineral data, new minerals, petrology, physical properties of rocks and minerals, topographical mineralogy, and other various topics. Four issues per year are published. The annual index includes author and subject entries.

Oceanic Abstracts. Louisville, Ky.: Data Courier, 1975- .

GC1.O24 (S/T Reference)

"Oceanic Abstracts covers marine biology and biological oceanography, physical and chemical oceanography, meteorology, geology, geophysics, geochemistry, marine pollution, living and non-living marine resources, and ships and shipping." The purpose of this abstracting journal is to organize, summarize, and index worldwide technical literature on oceans. The editorial staff screens over 2,000 primary sources, including "technical journals, conference proceedings and papers, books, government reports, documents with limited circulation, and trade publications. The relevant material is abstracted, organized into chapters, and indexed by subject and author." This title is published six times per year with annual author and subject indexes. It is available for online searching.

Pollution Abstracts. La Jolla, Ca., 1970- .

TD172.P65 (S/T Reference)

Pollution Abstracts organizes, summarizes, and indexes worldwide technical literature on environmental pollution. It is published six times per year and is designed to help environmentalists, academic researchers, librarians, industrial engineers, lawyers, waste managers, and federal, state, and local government officials locate published materials on pollution related topics. Citations are arranged in the following sections: air pollution, waste management, toxicology and health, and environmental action. Author and subject indexes are provided. This source is available for online searching.

Public Affairs Information Service. Bulletin. New York: Service, 1915- .

Z7163.P9 (Alderman Reference)

This title is usually referred to as PAIS and is issued as weekly bulletins with cumulations published 5 times per year and a cumulated volume published annually. PAIS is a subject index

to current literature relating to economic and social conditions. It indexes books, pamphlets, reports of public and private agencies, and articles in periodicals and is a useful index for material on political science, government, legislation, economics, and sociology. This source is available for online searching.

Sage Urban Studies Abstracts. Beverly Hills: Sage Publications, 1973- .

HT51.S24 (S/T Reference)

This abstracting service is published four times per year in February, May, August, and November. Each issue contains about 250 abstracts of literature appearing in books, journals, pamphlets, government publications, speeches, legislative research studies, and other "fugitive material." Citations and abstracts are arranged in the following sections: urbanism and urban research; urban history; urban design and architecture; community development and new communities; urban planning and land use; environment and energy; transportation and communication; crime, criminal justice, and law enforcement; employment and labor; housing and social services; government, administration, and policy; urban economics and finance; and social and political conditions. Cumulated author and subject indexes are available.

Science Citation Index. Philadelphia: Institute for Scientific Information, 1961- .

Z7401.S37 (S/T Reference)

Science Citation Index is a calendar year index published bi-monthly with an annual cumulation. It is composed of three related sections: 1) the Source Index (arranged by author); 2) the Permuterm Subject Index; and 3) the Citation qndex (arranged by cited author). The Source Index and the Permuterm Index provide author and subject access to articles in over 3,000 journals. The Citation Index provides access to material which has been cited in the literature. An explanation of how to use the index is provided in each issue and yearly cumulation. A list of journal abbreviations and book titles is also provided. This source is available for online searching.

Selected Water Resources Abstracts. Washington: National Technical Information Service, 1968- .

TC423.S4 (S/T Reference)

"Selected Water Resources Abstracts, a semimonthly journal, includes abstracts of current and earlier pertinent monographs, journal articles, reports, and other publication formats. These

documents cover water resources as treated in the life, physical, and social sciences and the related engineering and legal aspects of the characteristics, supply condition, conservation, control, use, or management of water resources. Each abstract includes a full bibliographic citation.... Selected Water Resources Abstracts is designed to serve the scientific and technical information needs of scientists, engineers, and managers...." Cumulated annual subject, author, organization, and accession number indexes are provided. This source is available for online searching.

Toxic Substances Sourcebook. New York: Environment Information Center, 1978.

T55.3.H3T69 vol. 1 (S/T Reference)

The major portion of this volume is made up of abstracts of journal articles, techincal reports, books, conference proceedings, NIOSH literature, and films which deal with toxic substances. Special sections are devoted to statistics and legislation. A list of periodicals is given. Subject, SIC number, geographic, and author indexes are provided.

United States. National Agricultural Library. Bibliography of Agriculture. Washington: Government Printing Office, 1942- .

Z5073.U5 (S/T Reference)

"The Bibliography of Agriculture is a monthly index to the literature of agricultural and allied sciences. It is based upon indexing records found in AGRICOLA...the computerized bibliographic data files distributed by the National Agricultural Library.... The National Agricultural Library collects literature related to agriculture from worldwide sources. The Bibliography includes citations of journal articles, pamphlets, government documents, special reports, proceedings, etc.... The main entry section provides descriptive bibliographic data for records added to the AGRICOLA files during the preceeding month." Geographic, corporate author, personal author, and subject indexes are provided. Citations are arranged in the following sections: agriculture; geography, climate and history; education, extension and advisory work; administration and legislation; economics, development and rural sociology; plant science; pesticides; soil science; forestry; animal science; aquatic sciences and fisheries; agricultural engineering; national resources; food science and food products; feed products; agricultural products; human nutrition; home economics; pollution; and auxiliary disciplines. This source is available for online searching.

United States. Superintendent of Documents. Monthly Catalog of United States Government Publications. Washington: Government Printing Office, 1895- .

Z1223.A12 (S/T Reference, Alderman Public Documents)

This source is a current bibliography of publications issued by all branches of the federal government, including both the Congressional and the department and bureau publications. This source is available for online searching.

Zoological Record. London: J. Van Voorst, 1864- .

Z7991.Z87 (S/T Reference)

"The Zoological Record, founded in 1864, is published annually in separate sections. The first of these is Comprehensive Zoology, followed by sections recording a year's literature relating to a Phylum or Class of the Animal Kingdom. The final section lists the new genera and subgenera contained in each volume." Separate sections include: comprehensive zoology; protozoa; porifera; coelenterata; echinodermata; nematoda, annelida, conodonta and trace fossils; brachiopoda; bryozoa; mollusca; crustacea; trilobita; arachnida; insecta; protochordata; pisces; amphibia; reptilia; aves; mammalia; and the list of new genera and subgenera. "Each volume of Zoological Record includes mainly the literature of the year to which it refers and not literature received up to the time at which it is published." About 6,000 journals as well as a wide range of books and other monographs are scanned regularly for material to be included in the index. In each section, main entries are arranged alphabetically by author's name. Subject, geographic, palaeontological, and systematic indexes are included. Possible implementation of online searching for this index is being studied.